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# Data sheet for SINAMICS G115D

**Article No. :** **6SL3520-1XR12-2AF0**



Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

## Rated data

| | |
|---|---|
| **Input** | |
| Number of phases | 3 AC |
| Line voltage | 380 ... 480 V +10 % -10 % |
| Line frequency | 45 ... 66 Hz |
| Rated current | 5.18 A |
| **Output** | |
| Number of phases | 3 AC |
| Rated voltage | 400 V |
| Rated power IEC 400V (HO) | 2.20 kW |
| Rated power NEC 480V (HO) | 3.00 hp |
| Rated current (HO) | 5.90 A |
| Max. output current | 11.80 A |
| Pulse frequency | 4 kHz |
| Output frequency for vector control | 0 ... 240 Hz |
| Output frequency for V/f control | 0 ... 550 Hz |
| **Overload capability** | |
| High Overload (HO)<br>200% × base load current IH for 3 s, followed by 150% for 57 s within a cycle time of 300s | |

## Inputs / outputs

| | |
|---|---|
| **Standard digital inputs** | |
| Number [1)] | 4 |
| Switching level: 0 → 1 | 11 V |
| Switching level: 1 → 0 | 5 V |
| Max. inrush current | 15 mA |
| **Fail-safe digital inputs** | |
| Number | 1 |
| **Digital inputs / outputs parameterizable** | |
| Number | 2 |
| **PTC/ KTY interface** | |
| 1 motor temperature sensor input, possible sensor PTC, KTY, PT1000, thermo click, accuracy ±5 °C | |

## General tech. specifications

| | |
|---|---|
| Power factor λ | 0.00 ... 0.90 |
| Offset factor cos φ | 0.99 |
| Efficiency η | 0.97 |
| Power loss | 0.096 kW |
| Filter class (integrated) | RFI suppression filter for Category C2 |
| Brake voltage | 180V DC (default) |
| Integrated braking resistor (continuous braking power P_DB / peak power P_max) | 10W / 100W |

## Ambient conditions

| | |
|---|---|
| Cooling | Natural convection cooling |
| Installation altitude | 1,000 m (3,280.84 ft) |
| **Ambient temperature** | |
| Operation | -30 ... 55 °C (-22 ... 131 °F) |
| Transport | -40 ... 70 °C (-40 ... 158 °F) |
| Storage | -40 ... 70 °C (-40 ... 158 °F) |
| **Relative humidity** | |
| Max. operation | 95 % At 40 °C (104 °F), condensation and icing not permissible |

## Mechanical data

| | |
|---|---|
| Degree of protection | IP65/66 / UL type 4X |
| Frame size | FSB |
| Net weight | 7.32 kg (16.10 lb) |
| **Dimensions** | |
| Width | 425 mm (16.73 in) |
| Height | 180 mm (7.09 in) |
| Depth | 134 mm (5.28 in) |

## Closed-loop control techniques

| | |
|---|---|
| V/f linear / square-law / parameterizable | Yes |
| V/f with flux current control (FCC) | Yes |
| V/f ECO linear / square-law | Yes |
| Sensorless vector control | Yes |
| Vector control, with sensor | No |
| Encoderless torque control | Yes |
| Torque control, with encoder | No |

## Communication

| | |
|---|---|
| Communication | PROFINET, EtherNet/IP |
| Version | M12 |

## Control option

| | |
|---|---|
| Control option | Repair switch |

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens

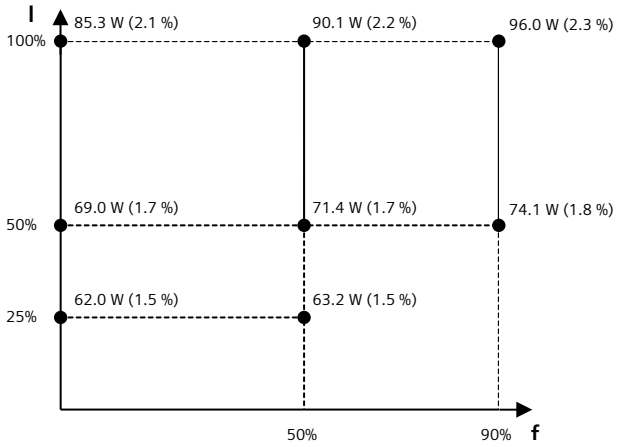
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| Connections | |
|---|---|
| **Connection type** | |
| Version | Cable gland |
| **3AC 400V supply** | |
| Version | Cable gland |
| Conductor cross-section | 2.50 ... 6.00 mm² (AWG 13 ... AWG 9) |
| **24 V DC power supply** | |
| Variant | external |
| Version | 2x M12 Power |
| **Digital I/O** | |
| Version | M12 |
| **Motor** | |
| Version | Cable gland |
| Conductor cross-section | 2.50 ... 4.00 mm² (AWG 14 ... AWG 10) |
| **External brake resistor** | |
| Version | Cable gland (Standard) |
| **PE connection** | |
| Version | On housing with M5 screw |
| **Max. motor cable length** | |
| Shielded | 15 m (49.21 ft) |

| Converter losses to IEC61800-9-2* | |
|---|---|
| Efficiency class | IE2 |
| Comparison with the reference converter (90% / 100%) | 32.09 % |




The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

| Standards | |
|---|---|
| Compliance with standards | UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH |
| CE marking | EMC Directive 2014/30/EC, Low-Voltage Directive 2014/35/EC |

[1] 4 inputs PNP, not isolated, additional 2x switcheable DI/DO